inVoca™ Deluxe

The world's Most Advanced Remote Control

TV
Scan Down

wake up   power

mute   prev

vol   ch

scan

dvd   cd   audio   aux

inVoca

<u>Tell</u> *Your TV What To Do — Without Lifting a Finger!*

Users Guide

V1.7

Macros Explained

*One of the powerful features of **inVoca** is its ability to utilize "macros." A macro is simply a sequence of commands triggered by a single button push or spoken word. A simple macro might be "0" followed by "7" followed by "Enter" (for tuning your TV) reduced by a macro to a single command such as "ABC" or "Millionaire."*

A more complex macro would allow you to play a VCR tape. To do this the old fashioned way you would need to press "TV" then"Power" then "0" then "3" then "VCR" then "power" then "play." A macro would allow you to do all this with a single spoken command such as "play tape." Isn't that easier? "Multiple String Macros," explained on page 30, permit you to do such things as surf between three or four channels with a single command — very handy for watching New Year's Day football!

☞ *Following are the conventions used in this guide* ☜

`Button`	An *inVoca* button
`Button1` → `Button2`	Press and release button 1, then press button 2
Word	Prompts spoken by *inVoca* are in light italics
Word	Your voice commands are in dark italics

The World's Most Advanced Remote Control

Using technology so advanced that it has been used in interplanetary space probes, the *inVoca*™ Voice Operated Remote Control uses the sound of your voice to control your TV, VCR, Cable Box, Satellite — and even your home theater! The *inVoca* converts your spoken words into infrared remote control signals using proven, accurate, voice recognition technology.

The *inVoca* can recognize up to 50 commands and is so automated it can perform multi-step operations from a single spoken command!

Key Features
- **Complete Home Theater Universal Remote Control**
  - Operates with voice commands or button presses
  - Controls up to eight devices including TV, VCR, Cable/DSS, DVD, and most popular audio components.
- **User-Trained Voice Recognition**
  - Language and accent independent
  - Map any voice command to any button
  - Train up to 50 voice commands
- **Easy Set-Up**
  - Friendly "Voice Prompts" talk you through the set up
  - Simple training process combines macros and voice commands
  - Handy "Auto-Search" feature finds the right code for your entertainment device
- **Digital display indicates status - simplifies operation**
- **Four Independent "Personalities"**
  - Every family member has their own personal voice commands and favorite channels
- **Powerful Macro Capability**
  - A single voice command can send multiple button presses
  - Multi-String Macros send out different button sequences on subsequent commands
  - Up to 50 macros
- ***Favorite Channel Selection***
- ***Channel Scan*** for Hands Free Surfing
- ***Non-Volatile Memory*** retains set-up without the battery
- ***Priority Press*™** simplifies commands and reduces button presses
- ***Fast Volume*™** for rapid voice-controlled volume changes

Table of Contents

BUTTONS & FUNCTIONS

LED	The multi-function LED will flash different colors, depending on the specific operation. See pages 10, 41.
LCD Display	Digital display shows *inVoca* status. See pages 10, 41.
`TV/CD` `CBL/SAT` `Audio/Aux` `VCR/DVD`	Device Button, used to select the device to be controlled. For example, after pressing `TV/CD`, *inVoca* will control your TV. Press `TV/CD` a second time to control your CD player.
`Wake up`	Used to "wake up" *inVoca* from its power-saving "sleep mode." See page 24.
`Power`	Used to turn your TV, VCR, etc. on and off.
`Mute`	Mutes the TV. Also used for Auto-Mute (page 35).
`Prev`	Switches the selected device to the previously tuned channel.
`SCAN`	*inVoca*'s Channel Scan feature means hands-free channel surfing — you can even tell *inVoca* how long to stop at each channel! See page 28.
`F1` - `F4`	Macro buttons. See page 43
`Learn/M`	Learn Macro Button. See "Advanced Features," page 30.
`PROG`	Program button. Used for setting up the *inVoca*. See Set-up Guide, Special Features, and advanced features.
`Train`	Used in "training" voice commands. See "Voice Set Up," page 12.
`←`	Used for various functions. When you see `←` followed by another button (for example, `←` → `1`), press and release the `←` button, then press the `1` button.
`→`	See above
`Auto`	Used for Auto-Search. See page 48.
Function Buttons	Perform the desired functions on your entertainment devices.

SET UP GUIDE

Setting up the *inVoca* is as easy as:

1   **Set up *inVoca* for your entertainment system**

⇓

2   **Teach *inVoca* to recognize your voice**

⇓

3   **Set up macros**

1   **Set up *inVoca* for your system (TV, VCR etc.)**

The *inVoca*, just like any universal remote control, needs to be set up to operate with the entertainment components you wish to control. Once the *inVoca* is set up to operate with the components, you can then "train" the *inVoca* to recognize and respond to your voice commands. (See page 10)

2   **Teach *inVoca* to recognize your voice**

The powerful voice recognition capability of *inVoca* is user-trained for language and accent independence. ***Before you can use inVoca, you will need to teach it to recognize your voice commands***.

You may optionally train the *inVoca* to respond differently to up to four family members or "personalities." Because every person using the *inVoca* will probably have a different speech pattern pitch, the *inVoca* will provide the best results when "trained" to respond to each family member. In addition, *inVoca*'s use of "personalities" allows all family members to have their own favorite channels and word choice (Page 12).

3   **Set up macros**

Any word may be set up to initiate either a single button press (for example `V+` to turn up the volume) or a "macro." A

"macro" is simply a sequence of multiple button presses initiated with one command (See "Macros Explained," page 2). For example:

$\boxed{\text{TV/CD}} \rightarrow \boxed{1} \rightarrow \boxed{7}$

tells *inVoca* to switch into TV mode, then turns the TV to channel 17.

$\boxed{\text{TV/CD}} \rightarrow \boxed{0} \rightarrow \boxed{3} \rightarrow \boxed{\text{VCR/DVD}} \rightarrow \boxed{\text{PLAY}}$
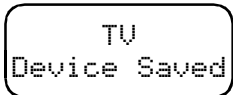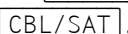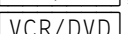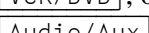
tells the TV to switch to channel 3, then instructs the VCR to start playing a tape.

As you will see, the user-friendly *inVoca* set-up combines training commands and macros into one simple operation. (Page 12)

1. Set up *inVoca* For Your Entertainment System (TV, VCR etc.)

Before using the *inVoca* you will need to install four new AA alkaline batteries (see page 61), then set it up for the entertainment components you wish to control, such as your TV, VCR, and Cable or DSS box.

1. $\boxed{\text{TV/CD}}$, $\boxed{\text{CBL/SAT}}$, $\boxed{\text{VCR/DVD}}$, or $\boxed{\text{Audio/Aux}}$	Press the device button for the device you wish to program. The LED will flash red once. The LCD display will show the device selected. Pressing the device button a second time will select the alternative device for that button. (Press $\boxed{\text{TV/CD}}$ once to select TV. Press $\boxed{\text{TV/CD}}$ again to select CD.) The device selected will switch between the two alternative selections each time you press the device button. For example, pressing $\boxed{\text{TV/CD}}$ a third time will select TV again.
2. $\boxed{\text{PROG}}$	Press the $\boxed{\text{PROG}}$ button. The LED will flash red twice. The word "Program" will show on the second line of the LCD Display with a flashing cursor. LCD Display: `TV` `Program_`
3. $\boxed{1} \rightarrow \boxed{2} \rightarrow \boxed{3}$	Type in the 3-digit code for your TV, VCR, etc. The codes can be found in the Code List section beginning at page 62. The LED will flash red once for each digit pressed. The digits will be displayed as they are entered.

4.
 	
PROG
	After you have entered the correct code, press PROG. The LED will flash red three times. You have now programmed the device. The words "Device Saved" will appear in the LCD display.
	
	LCD Display:
	
	``
	        TV
	  Device Saved
	``
	
	Test the device by pressing Power. If it does not respond to the Power button, try the next code in the list for your system's manufacturer.
	
	Be sure to test a variety of buttons to ensure they all work. Many devices use similar remote control codes and occasionally some commands will not work properly. If this occurs, try the next code in the list for your system's manufacturer.

5. TV/CD, CBL/SAT, VCR/DVD, or Audio/Aux	Repeat steps one through four for each device you wish to program: TV, VCR, Cable box, etc., up to eight devices.

You are not restricted to using just one TV, VCR etc. A powerful feature of the *inVoca* is the ability to program multiple devices of the same type such as two or more TV's, VCR's etc. See *Substitute Devices* (page 51) for details.

When programming *inVoca* to control TV/VCR combination units ("Combo's"), you may need to set up the TV and VCR codes separately. If all the functions do not work, first select the appropriate TV code and program the TV selection button, then select the appropriate VCR code and program the VCR button.

☞ *The codes in the back of this manual are arranged by manufacturer and listed in order of age. The first codes are the*

*latest models, and the last codes are the oldest. You may have to try several codes in order to find the correct code. If you cannot find the correct code, refer to the **Auto Search/Manual Search** (See page 48) feature or the **Frequently Asked Questions** section of this manual (page 54).*✍▪

2. Teach *inVoca* to Recognize Your Voice

The powerful voice recognition capability of **inVoca** is user-trained for language and accent independence. *Before you can use **inVoca**, you will need to teach it to recognize your voice.*

Training Voice Commands and Macros
The user-friendly, yet powerful **inVoca** training system combines training your individual voice commands and macros into one combined operation.

☞ ***Before training inVoca to recognize your voice commands, please be sure the room is reasonably quiet and lower the TV volume. While the inVoca employs the latest state-of-the-art in speech recognition, it will nonetheless have difficulty recognizing commands if two people are speaking at once or if there is other background noise.*** ✍▪

☞ *The closer **inVoca** is located to you the better the chance **inVoca** has of hearing and understanding your commands. This is especially true in a noisy room. Remember **inVoca** is trying to understand what you are saying over the sounds coming out of the TV. In general, you will have best results when **inVoca** is between 12 and 36 inches from your mouth in a quiet room, and between 12 and 24 inches in a noisy room. You may adjust this somewhat with the microphone sensitivity switch (page 29). For best results, you should try to hold **inVoca** at the same distance from your mouth during training as you will when you are using it and train **inVoca** in the same room as your entertainment system .*

If the television or receiver sound is very loud, you may need to hold **inVoca** *less than 12 inches away, or talk louder than normal for* **inVoca** *to be able to hear you.* ✍

☞ ***Special Note To First Time inVoca Users*** ✍

Please remember to speak the same when you are training inVoca as you will when you actually are using inVoca, and hold inVoca the same distance from you when training as you will during normal use.

If, like many new users, you speak unusually clearly and slowly during training, inVoca may not recognize your commands when you later speak normally. For consistent results, speak naturally at all times! As with all voice operated products, you will achieve the best results with practice.

To train your first command (Teach **inVoca** to turn on the TV) follow these steps:

Train inVoca to Turn on the TV

You Do This	inVoca Response
Press the ⌷Train⌷ button	**inVoca** will say, "*Say a word*." When the **inVoca** is ready to listen, the LED will light green. The top line of the display will continue to display the last device you selected. If this is not the device you will be selecting with the voice command, don't worry, you will change it below.
Say a one or two-word voice command. For example, "**TV Power**."	**inVoca** will ask you to repeat the command.

You Do This	inVoca Response
Say the same word again	If the two words match, **inVoca** will say "*Press a button*." The display will show "Train ends." ┌─────────────┐ TRAIN ends └─────────────┘
Press the first button that you wish to associate with the voice command (⌷TV/CD⌷ in this example) within 15 seconds.	**inVoca** will respond with, "*Button accepted. Press another button*." The top line of the display will show "Train ends." The second line will show the last button pressed, in this case "TV." ┌─────────────┐ TRAIN ends TV └─────────────┘
Press the next button in the sequence (in this example, ⌷Power⌷) within 15 seconds.	**inVoca** will say, "*Button accepted. Press another button*." The second line of the display will show "Power." ┌─────────────┐ TRAIN ends Power └─────────────┘
Since you have now completed the sequence, press the ⌷Train⌷ button.	Since you have created a sequence of more than one button, **inVoca** will say, "*macro assigned*." The top line of the display will now show "TV." ┌─────────────┐ TV └─────────────┘

The voice-command ***TV Power*** is now assigned to the macro sequence ⌷TV/CD⌷ → ⌷Power⌷, and is equivalent to pressing the ⌷TV/CD⌷ button, then the ⌷Power⌷ button.

*To program **inVoca** to turn your cable box on and off, follow the above procedure, but substitute the CBL/SAT button, and use the command "**Cable Power**" as follows:*

Train *inVoca* to Turn on the Cable Box

You Do This	*inVoca* Response
Press the Train button	*inVoca* will say, "*Say a word.*" When the *inVoca is* ready to listen, the LED will light green.
Say a one or two-word voice command. For example, "***Cable Power***."	*inVoca* will ask you to repeat the command.
Say the same word again	If the two words match, *inVoca* will say "*Press a button*."
Press the first button that you wish to associate with the voice command (CBL/SAT in this example) within 15 seconds.	*inVoca* will respond with, "*Button accepted. Press another button*." The top line of the display will show "Train ends." The second line will show the last button pressed, in this case "Cable."
Press the next button in the sequence (in this example, Power) within 15 seconds.	*inVoca* will say, "*Button accepted. Press another button*." The second line of the display will show "Power."
Since you have now completed the sequence, press the Train button.	Since you have created a sequence of more than one button, *inVoca* will say, "*macro assigned*."

The voice-command ***Cable Power*** is now assigned to the macro sequence CBL/SAT → Power, and is equivalent to pressing the CBL/SAT button, then the Power button.

Now, using the same procedure, let's set up the most common commands.

Train *inVoca* To Select The Cable Box

You Do This	*inVoca* Response
Press Train	*"Say a word."* LED will light green.
Say "***Cable***"	*"Repeat"*
Say "***Cable***" again.	*"Press a button"*
Press CBL/SAT	*"Button accepted. Press another button"*
Press Train	*"Button assigned"*

(As with any universal remote control, you will need to let *inVoca* know what device it is to control. For example, if you use a cable or DSS box to change channels, remember to train the CBL/SAT button as above, and select "Cable" or "DSS" prior to changing channels.)

Train *inVoca* To Select The Television

You Do This	*inVoca* Response
Press Train	*"Say a word."* LED will light green.
Say "***television***"	*"Repeat"*
Say "***television***" again.	*"Press a button"*
Press TV/CD	*"Button accepted. Press another button"*
Press Train	*"Button assigned"*

Train *inVoca* To Make The Volume Louder

You Do This	*inVoca* Response
Press Train	*"Say a word."* LED will light green.
Say "***Louder***."	*"Repeat"*
Say "***Louder***" again.	*"Press a button"*
Press V+	*"Button accepted. Press another button"*
Press Train	*"Button assigned"*

Train *inVoca* to Make The Volume Softer

You Do This	*inVoca* Response
Press ⌈Train⌉	Say a word. LED will light green.
Say the command "***Softer***."	"*Repeat.*"
Say "***Softer***"again.	"*Press a button*"
Press ⌈V-⌉	"*Button accepted. Press another button*"
Press ⌈Train⌉	"*Button assigned*"

☞ *To make **inVoca** get louder or softer rapidly without having to repeat the commands **Louder** and **Softer**, see Fast Volume™ (page 27)* ✑

Train *inVoca* To Go Up To The Next Channel

You Do This	*inVoca* Response
Press ⌈Train⌉	*inVoca* will say, "*Say a word.*" The LED will light green.
Say the command *"**Next Channel**."*	*inVoca* will say "*Repeat.*"
Say "***Next Channel***"again.	If the two commands match, *inVoca* will say "*Press a button*."
Press ⌈CH+⌉	*inVoca* will respond with, "*Button accepted. Press another button*."
Press ⌈Train⌉	*inVoca* will say, "*Button assigned.*"

Train *inVoca* To Go Down A Channel

You Do This	*inVoca* Response
Press ⌈Train⌉	*inVoca* will say, "*Say a word.*" The LED will light green.
Say the command "***Previous***."	*inVoca* will say "*Repeat.*"
Say "***Previous***" again.	If the two commands match, *inVoca* will say "*Press a button.*"
Press ⌈CH-⌉	*inVoca* will respond with, "*Button accepted. Press another button.*"
Press ⌈Train⌉	*inVoca* will say, "*Button assigned.*"

Train *inVoca* to Scan Channels (see page 28 for Scan operation.)

You Do This	*inVoca* Response
Press ⌈Train⌉	*inVoca* will say, "*Say a word.*" The LED will light green.
Say "***Scan***."	*inVoca* will say "*Repeat.*"
Say "***Scan***"again.	If the two words match, *inVoca* will say "*Press a button.*"
Press ⌈SCAN⌉	*inVoca* will respond with, "*Button accepted. Press another button.*"
Press ⌈Train⌉	*inVoca* will say, "*Button assigned.*"

Using this procedure, you can set up both simple or complex sequences. For example, let us now set up a simple macro to turn the TV to channel 33 to watch Nickelodeon (*you will need to substitute the correct channel number for your location*):

Train *inVoca* to Tune to a Specific Channel

You Do This	*inVoca* Response
Press ⌐Train⌐	*inVoca* will say, "*Say a word*." The LED will light green.
Say "***Nickelodeon***"	"*Repeat*"
Say "***Nickelodeon***"again.	"*Press a button*."
Press ⌐3⌐	"*Button accepted. Press another button*"
Press ⌐3⌐	"*Button accepted. Press another button*"
Press ⌐Train⌐	"*Macro assigned.*"

You'll never have to remember what the channel number for Nickelodeon is again! Using the same sequence, you may train *inVoca* to respond to your other favorite channel choices. Remember, you don't have to set up all of your channels — you can still change channels with ***"Next Channel*,**" "***Previous Channel*,**" and "***Scan*.**" Just set up your favorite channels.

You can also set up more complex macros. For example, with just the single command "Play Tape," you can set up the *inVoca* to switch the television to channel three, turn on the VCR, then press the ⌐play⌐ button on the VCR. The macro sequence is: ⌐TV/CD⌐ → ⌐0⌐ → ⌐3⌐→ ⌐VCR/DVD⌐ → ⌐POWER⌐ → ⌐PLAY⌐.

Teach *inVoca* A Macro To Play A Video Tape
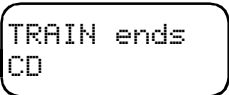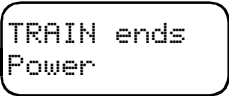
You Do This	*inVoca* Response
Press ⌐Train⌐	*inVoca* will say, "*Say a word*." The LED will light green.
Say the command "***Play Tape***"	*inVoca* will say "*Repeat*."
Say "***Play Tape***"again.	*inVoca* will say "*Press a button*."

You Do This	*inVoca* Response
Press ⌐TV/CD⌐	*inVoca* will respond with, "*Button accepted. Press another button*."
Press ⌐0⌐	*inVoca* will respond with, "*Button accepted. Press another button*."
Press ⌐3⌐	*inVoca* will respond with, "*Button accepted. Press another button*."
The above commands switch the TV to channel three. Now we need to turn on the VCR power and press Play.	
Press ⌐VCR/DVD⌐	*inVoca* will respond with, "*Button accepted. Press another button*."
Press ⌐POWER⌐	*inVoca* will respond with, "*Button accepted. Press another button*."
Press ⌐PLAY⌐	*inVoca* will respond with, "*Button accepted. Press another button*."
Press ⌐Train⌐	*inVoca* will say, "*Macro assigned.*"

Remember that to select the second device on a device button, for example CD, you need to press the ⌐TV/CD⌐ twice. For example:

Train *inVoca* to Turn on the CD Player

You Do This	*inVoca* Response
Press the ⌐Train⌐ button	*inVoca* will say, "*Say a word*." When the *inVoca is* ready to listen, the LED will light green.
Say a one or two-word voice command. For example, "***CD Power***."	*inVoca* will ask you to repeat the command.
Say the same word again	If the two words match, *inVoca* will say "*Press a button*." TRAIN ends

You Do This	*inVoca* Response
Press the first button that you wish to associate with the voice command. In this example, press `TV/CD` twice within 15 seconds.	*inVoca* will respond with, "*Button accepted. Press another button*." The top line of the display will show "Train ends." The second line will show "CD." `TRAIN ends CD`
Press the next button in the sequence (in this example, `Power`) within 15 seconds.	*inVoca* will say, "*Button accepted. Press another button*." The second line of the display will show "Power." `TRAIN ends Power`
To complete the sequence press the `Train` button.	Since you have created a sequence of more than one button, *inVoca* will say, "*macro assigned*." The top line of the display will show "CD." `CD`

The voice-command ***CD Power*** is now assigned to the macro sequence `TV/CD` → `TV/CD` → `Power`, and is equivalent to pressing the `TV/CD` button twice followed by the `Power` button.

To train *inVoca* to select your CD changer, so that you can use the Play, Fast Forward etc. commands to control your CD changer:

Train *inVoca* To Select The CD Changer

You Do This	*inVoca* Response
Press `Train`	*"Say a word."* LED will light green.
Say "***CD Changer***"	*"Repeat"*
Say "***CD changer***"	*"Press a button"*
Press `TV/CD` twice	*"Button accepted. Press another button"*
Press `Train`	*"Button assigned"*

If you are using ***inVoca*** to control a stereo receiver, you will need to train the `Audio/Aux` button to select your receiver. To use the channel and volume buttons to control your receiver, you simply select it then issue the channel and volume commands.

Train *inVoca* To Select The Receiver
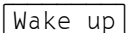
You Do This	*inVoca* Response
Press `Train`	*"Say a word."* LED will light green.
Say "***Receiver***"	*"Repeat"*
Say "***Receiver***" again.	*"Press a button"*
Press `Audio/Aux`	*"Button accepted. Press another button"*
Press `Train`	*"Button assigned"*

Using the above procedure, you should train ***inVoca*** to respond to your choice of commands for the different components of your home theater system.

When you are programming a new voice command or keyword, *inVoca* will ask you to say a word. You must choose a voice command that is easy for you to remember and is distinct from any other voice command. *inVoca* will warn you if you speak to soon, or too softly. *inVoca* will always ask you to repeat the command. This is to insure that the command was correctly recorded. For example, a background noise that you did not notice may have been recorded as part of the command. You may be asked to repeat the command several times before *inVoca* is convinced that it has a good sample. If the command or keyword is similar to one already recorded, *inVoca* will ask you to "*Choose a different word.*"
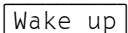
See "Choosing Voice Commands" (Page 25) for some guidelines in selecting commands.

USING VOICE COMMANDS

L *To maximize battery life, the **inVoca** will "sleep" when not in use. Remember to "wake up" the **inVoca** by pressing the* `Wake up` *button before giving the **inVoca** a voice command. When you first wake up **inVoca**, it will remain awake for 60 seconds as it listens for the first voice command. Each time **inVoca** recognizes a command, it will remain awake for another 60 seconds as it listens for the next command. (This time is adjustable. See page 47)* ✐

L ***Please be sure the room is reasonably quiet — while the inVoca employs the latest state-of-the-art in speech recognition, it will nonetheless have difficulty recognizing commands if two people are speaking at once or if there is other background noise.*** ✐

L *inVoca requires a brief period of silence before it can recognize a voice command.* ✐

The *inVoca* will immediately listen for remote commands when the `Wake up` button is pressed. The LED will light green indicating that it is listening for a voice command. The LCD Display will indicate the last device (TV, VCR, Cable box, etc.) you have selected.

*The closer **inVoca** is to you, the better the chance it has of hearing and understanding your commands, especially in a noisy room. Remember **inVoca** is trying to understand what you are saying over the sounds coming out of the TV. In general, you will have best results when **inVoca** is between 18 and 36 inches from your mouth in a quiet room, and between 12 and 24 inches in a noisy room. You may adjust this with the microphone sensitivity switch (page 29).*

☞ *As with any remote control, the infrared LEDs must be pointing at the device to be controlled when either a button is pressed or a voice command is utilized.* ✐

Choosing Voice Commands

inVoca allows you to associate any voice command with any button. While it might be tempting to program a voice command for every button, this is usually not recommended because in operation you would then need to pause, say the first number, then pause and say the next number. It is more useful program a voice command to a macro button. For example you can use the command "HBO" to set your cable box to channel 17 (or whatever channel HBO is on your neighborhood). You could program the voice command as "Channel 17" but "HBO" is usually easier to remember. *Use commands that are easy to remember!*

Try to choose voice commands that are distinct from one another. For example, "CSPN" and "ESPN" will probably sound too similar for most speakers. Changing one of these to something that sounds different (for example, C-SPAN instead of CSPN) will provide better results. Multi-syllable or two-word commands work better than short words because *inVoca* has more information to work with and can better understand the command. For example "Quiet" and "Silent" are better word choices than "Mute" because they contain more sound information. Also, having commands of different length will make it easier for *inVoca* to distinguish them.

You may wish to associate the words "Louder" and "Softer" with the volume-up and volume-down buttons. But for some people "louder" sounds a lot like "power" (at least a far as *inVoca* is concerned), so you may inadvertently shut off your TV instead of making it louder. Using the words "TV Power" or "power on" will make it easier for *inVoca* to distinguish the commands. Also, remember if you make the TV too loud, *inVoca* may have a hard time hearing your commands over the sound of the TV.

"Next Channel" and "Previous Channel" will often provide better results than "channel up" and "channel down." See "Suggested Vocabulary" (page 58) for more suggestions.

Changing and Deleting Voice Commands

From time to time you may wish to delete or change a voice command. For example, you may decide you would prefer a different command that is easier to say or remember. Sometimes, if a command is not working well, there may have been some background noise when you recorded the command, and performance will be improved if you erase, then re-record it.

To delete a voice command:

1. Press and release the $\boxed{\rightarrow}$ button, then press the $\boxed{\text{Train}}$ button.

2. *inVoca* will respond with "*Beep. Say a word.*"

3. Say the command you wish to erase.

4. *inVoca* will respond with "*button erased*" or "*macro erased*."

To Cancel A Training Operation

You may elect not to train a command after you have pressed the $\boxed{\text{Train}}$ button, or after beginning to erase a personality. If you do not speak after pressing the $\boxed{\text{Train}}$ button, *inVoca* will respond three times with the words *"too soft."* You have the choice of waiting for *inVoca* to repeat this phrase or you may simply press any button to cancel the operation.

SPECIAL FEATURES

Fast Volume™

Fast Volume is a unique feature of *inVoca* that makes remote control of volume especially fast and convenient. *Fast Volume* sends multiple volume up or down commands with a single button push or just one spoken command. To use *Fast Volume* simply press ⟨←⟩ → ⟨V+⟩ (louder) or ⟨←⟩ → ⟨V-⟩ (softer) to have *inVoca* send four volume up or down commands at one time. For even faster volume adjustment, ⟨→⟩ → ⟨V+⟩ or ⟨→⟩ → ⟨V-⟩ sends eight volume up or down commands.

To train *inVoca* to use *Fast Volume*:

1. Be sure the room is reasonably quiet.
2. Press and release the ⟨Train⟩ button
3. *inVoca* will prompt you by saying *"Say a word"*
4. Wait for the LED to light up green before you speak.
5. Say a one or two word voice command. For example, ***"Much Louder"***
6. The *inVoca* will ask you to repeat the command.
7. Say the same command again.
8. If the two commands match, *inVoca* will say "*Press a button.*"
9. Press and release ⟨←⟩, then press ⟨V+⟩. *inVoca* will say, *"Button accepted. Press another button.*" Press ⟨Train⟩. *inVoca* will respond with "*button assigned.*

Repeat the above steps with the voice command "***Very Soft***," and with the button sequence ⟨←⟩ → ⟨V-⟩ for rapidly lowering the volume.

☞ *Please note: To avoid sending commands faster than the television can receive them, **inVoca** will need one or two seconds to send the entire string of volume up or down commands. Make sure the **inVoca** is pointing toward the television when the **inVoca** LED is red so that the television will receive all the commands.* ✎

Channel Scan

Channel Scan gives you *hands free* channel surfing. Once you have pressed the ⟨SCAN⟩ button or spoken the channel "scan" command, *inVoca* will send out a ⟨CH+⟩ (Channel Up) or ⟨CH-⟩ (Channel Down) command every few seconds until you issue another voice command (such as "scan") or press any button other than 1-9, ⟨CH+⟩ or ⟨CH-⟩.

The scan will be up if the last channel button you pressed was ⟨CH+⟩, or down if the last channel button you pressed was ⟨CH-⟩. The normal speed of the scan (that is, how long the TV will pause at each station) is five seconds.

You may vary the speed of the scan by pressing buttons 1 - 9 while *inVoca* is scanning. The range is one channel command every three seconds if you press button 1, one command every four seconds if you press button 2, ranging up to one command every 12 seconds with button 9. You can press ⟨CH+⟩ or ⟨CH-⟩ to switch directions.

The top line of the display will reflect the device being controlled, and the bottom line will show the scan direction, either up or down.

```
    TV
Scan Up
```
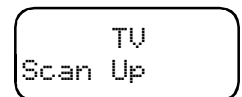
☞ *inVoca* *cannot listen for voice commands at the same time it is sending infrared commands. If you issue a voice command to stop the scan while the LED is red, signifying* **inVoca** *is transmitting, it will not be able to hear your command, and* **inVoca** *will keep scanning. To avoid this it is recommended that you do not set the scan rate at too fast a speed. Because some entertainment devices require longer transmissions than others, the best rate will vary from user to user.* ✎

Punch Through

inVoca will try to reduce the number of buttons you have to press, in order to make operating your entertainment system as easy as possible. For example, VCRs and cable boxes rarely have volume controls. With devices such as these, if *inVoca* can, it will send volume control commands directly to the TV, even if you are in VCR or Cable mode, eliminating the need to press the TV/CD button..

Availability of this feature will vary with the type and manufacturer of the entertainment devices you are using.

Erasing *inVoca*'s Programming (Reset *inVoca*)

inVoca uses a special non-volatile memory to remember voice commands, macros, priority press and device setup. This ensures that *inVoca* will retain its programming even when you are changing the battery. From time to time you may wish to completely erase all programming and start fresh. To clear non-volatile memory, press ↱ → REC (*inVoca* will respond with a beep) followed by ↱ → REC again. (The LED will turn orange, then after a brief pause, *inVoca* will respond with the word "*erased*").

The LCD Display will indicate:

```
Initialize
inVoca
```

Caution: this will erase all set up information, voice commands and macros. inVoca will be reset to its default settings.

Microphone Sensitivity

A three-position microphone sensitivity control is located inside the battery compartment (see page 61). The sensitivity as shipped should be optimal for most users. However, you can make the microphone either more or less sensitive. Making the microphone more sensitive will make the *inVoca* more responsive to your commands, but also more sensitive to background sounds such as the TV or other people talking. Making the microphone less sensitive will make the *inVoca* less sensitive to background noises but also less sensitive to your voice, so you will need to speak louder.

Multi-String Macros

Multiple String macros take the flexibility and power of the *inVoca* to another level by letting you program a single command to step through a series of button sequences each time you speak the command. For example, a multi-string macro can let you surf through three favorite channels with just a single voice command or button push. The following multi-string macro uses the TV tuner to step through channels two, four, and seven, with a tuner that requires you to enter all numbers as two-button sequences.

You Do This	*inVoca* Response
Press the Train button	*inVoca* will say, "***Say a word***." When the *inVoca* is ready to listen, the LED will light green.
Say a one or two-word voice command. In this example, "***Favorite***."	*inVoca* will ask you to repeat the command.
Say the word ***Favorite*** again	If the two words match, *inVoca* will say "*Press a button*."
Press the first button that you wish to associate with the. In this example, TV/CD	*inVoca* will say, "*Button accepted. Press another button*."
Press the next button in the sequence. In this example, 0	*inVoca* will say, "*Button accepted. Press another button*."

You Do This	*inVoca* Response
Press ☐2☐	*inVoca* will say, "*Button accepted. Press another button.*"
Signify the end of the first string by pressing ☐Learn/M☐	*inVoca* will say, "*Button accepted. Press another button.*"
Press ☐0☐	*inVoca* will say, "*Button accepted. Press another button.*"
Press ☐4☐	*inVoca* will say, "*Button accepted. Press another button.*"
Signify the end of the second string by pressing ☐Learn/M☐	*inVoca* will say, "*Button accepted. Press another button.*"
Press ☐0☐	*inVoca* will say, "*Button accepted. Press another button.*"
Press ☐7☐	*inVoca* will say, "*Button accepted. Press another button.*"
Signify the end of the last string by pressing ☐Train☐	*inVoca* will say, "*Macro assigned.*"

Now, the first time you say "favorite," *inVoca* will take you to channel two. When you repeat "favorite,", *inVoca* will take you to channel four. As you repeat "favorite" *inVoca* will take you to channel seven, then keep surfing through the three channels. Could anything be easier for watching bowl games?

Priority Press™

Priority Press is a new feature that makes using *inVoca* simpler than any other remote control by eliminating the traditional need to push the ☐TV/CD☐, ☐CBL☐, ☐VCR/DVD☐, or ☐Audio/Aux☐ button every time you want to change what you are doing. *Priority Press* puts you in complete control. With *Priority Press*, you decide which entertainment device you wish to use for common functions — which you then perform with just one button press. *Priority Press* also simplifies voice programming, by reducing the number of button presses required to perform a function.

> ☞ *Once you have programmed Priority Press, you may never need to press the* ☐TV/CD☐, ☐CBL☐, ☐VCR/DVD☐, *or* ☐Audio/Aux☐ *buttons again!* ✍

For example, if both your cable box and TV can control volume, you can have *inVoca* automatically select the TV whenever you press volume up, volume down or mute, and have the *inVoca* automatically select the cable box to change channels whenever you press channel up, channel down, or any numeric key. (With traditional remote controls you would need to remember to push the TV button to change to the TV mode, then change the volume, then press the cable button to switch back to the cable mode to continue changing the channels.)

Priority Press classifies buttons of each common type together. The classifications are: volume-related buttons, channel related buttons, tape/DVD/Cassette control buttons, power-related buttons and Audio related buttons. Once you assign any button to a device, all the buttons of that type are automatically assigned. For example, if you assign ☐C+☐ to the cable box, ☐C-☐, ☐Prev☐, and the numeric keys are then all assigned to the cable box. Similarly, if you assign ☐V+☐ volume up to the television, ☐V-☐ and ☐Mute☐ are also assigned to the television.

To set up *Priority Press*:

1. `TV/CD`, `CBL/SAT`, `VCR/DVD`, or `Audio/Aux`	Press the device button for the device you wish to program. The LED will flash once.
2. `PROG`	Press the `PROG` button. The LED will flash twice.

3.
 	
`V+` `V-` or `Mute` (Volume Group)
 	
`C+` `C-`, (Channel `0`...`9`, Group) `Prev`
 	
`<<` `<` `Stop` (Tape/DVD `>` or `>>` Control Group)
 	
`Power` (Power Group)
 	
`Display` `Surround` `Exit` (Audio Group) `Next` `Select`
	After you have pressed `PROG`, press any button in the desired group. The LED will flash three times. Any button in that group will control the selected device.
	
	An asterisk (*) will be displayed on the far left of the top row of the LCD display to indicate Priority Press is on.

For example, to set up *Priority Press* to use the volume commands to specifically control your TV:
Press `TV/CD` → `PROG` → `V+`

When Priority Press is active, the LCD will display an asterisk on the left side of the top line, and the group associated with the button pressed. Examples are:

If you press Vol+, Vol- or mute

```
*     TV
Priority=Vol
```

If you press Power

```
*     TV
Priority=Pwr
```

If you press a tape/DVD control group button

```
*     DVD
Priority=Ply
```

If you press display, surround, etc.

```
*    Audio
Priority=Aud
```

The asterisk will remain as long as *Priority Press* is enabled.

For example, to automatically select your cable box whenever you wish to change channels,

Press `CBL` → `PROG` → `C+`

The display will show:

```
*     CBL
Priority=Ch
```

If you wish to override *Priority Press* (for example to record one channel with your VCR while you are watching a different channel with your TV), simply press a device button (`TV/CD`, `CBL/SAT`, `VCR/DVD`, or `Audio/Aux`). The LED will flash once. To turn *Priority Press* back on, press `Auto`. The asterisk at the left of the top row of the LCD will show when *Priority Press* is enabled.

The top line of the LCD display will always show the device you are controlling. For example, if the display is showing TV, Priority Press is programmed, and you press `Play`, the display will change to DVD if that is what you set up for the Tape/DVD group. It will continue to display DVD until you press a button for a different control group. (See also Punch Through, page 29.)

Auto-Mute

When enabled, Auto-Mute sends a Mute command to the television, thus making the room quiet so that *inVoca* will better understand voice commands.

inVoca offers two alternative Auto-Mute modes. In the full Auto-Mute mode, any time *inVoca* wakes up through the user pressing the `Wake up` button, *inVoca* will send a mute signal. In the "Qualified Auto-Mute" mode, *inVoca* sends a mute signal whenever it hears a valid keyword. You may sequence through the Auto-Mute modes as shown below. The LCD Display will indicate whether Auto-Mute is on, and if so, which Auto-Mute mode is selected.

Press	Then Press	LED flashes	Auto-Mute	Display
`←`	`Mute`	2	Full Auto-Mute	TV AutoMute On
`←`	`Mute`	3	Qualified Auto-Mute	TV AutoMute Key
`←`	`Mute`	1	Auto-Mute Off	TV AutoMute Off

You may turn the volume back on by issuing a Mute command.

VCR and Tape Recording

To prevent recording accidentally, *inVoca* requires that you press the REC button twice to send your VCR or tape deck a record command.

ADVANCED VOICE OPERATION FEATURES

Personalities (keywords)

L *If only one person is to use the **inVoca**, personalities are not required.* **7**
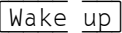
inVoca can learn independent voice commands for as many as four people. Each family member can program *inVoca* for his or her favorite channels. *inVoca* will only search for voice commands for the currently active personality. This is important since a child's voice is so much different than an adult's voice. The use of Personalities is optional but it will increase the recognition accuracy for households where more than one person will be using the *inVoca* remote control.

Setting up Personalities *(optional)*

"Personalities" are assigned through the use of "Keywords" to identify individual users. To train the *inVoca* to recognize a user ("train a keyword"):
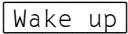
1. Be sure the room is reasonably quiet.

2. Press and release the `←` button then press the `Train` button

3. *inVoca* will prompt you by saying *"Say a keyword"*

4. Wait for the LED to light up green before you speak.

5. Say a one or two word voice command. For example, ***"Daddy."***

6. The *inVoca* will ask you to repeat the command.

7. Say the same word again.

8. If the two words match, *inVoca* will say "*keyword assigned*." If voice commands were programmed prior to the first keyword, then they will all be assigned to the first keyword.

*L You can add Personalities at any time, even if you have already trained **inVoca** to operate without having assigned a Personality. If you program a set of voice commands, and then record a keyword, **inVoca** will associate all the existing commands to the first Personality recorded. After that, you must identify yourself before you record any new commands to insure that they are added to the correct personality. If you have trained **inVoca** to recognize a large number of commands, you may wish to erase them, then re-train **inVoca** with the commands for each personality. 7*

If personalities are programmed, **inVoca** will normally "wake up" listening for the last personality used. That is, if "Daddy" was the last personality used, **inVoca** will wake up assuming that it is still being operated by "Daddy." To change users, press and release the ⎡←⎤ button then press the ⎡Wake up⎤ button. The LED will light orange which means that it is listening for a keyword to identify the personality. Once it recognizes a keyword the LED will light green and **inVoca** will remember the new personality until you change it again.

Switching to a Different Personality

If several family members typically take turns using **inVoca**, you may change the operation so that, if personalities are programmed, **inVoca** will always wake up listening for a new keyword. To do this, Press and release the ⎡←⎤ button then press the ⎡TV/VCR⎤ button. The LED will flash twice.

In this mode of operation, the **inVoca** LED will turn orange when **inVoca** has been awakened by pressing the ⎡Wake up⎤ button. **inVoca** then waits for you to identify the personality that you want to use. Say the keyword (personality) that you programmed. If **inVoca** recognizes the keyword, it will change the LED to green. **inVoca** will listen for a keyword for 30 seconds. If it doesn't hear a valid keyword in 30 seconds it will turn off the LED and go back to sleep.
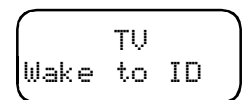
If it does hear a keyword, **inVoca** will listen for voice commands for

the selected personality only for a period of 60 seconds. If it hears a legitimate voice command, it will transmit the appropriate IR command and reset its 60-second timer. The LED will be Green while it is listening for voice commands and red while it is sending IR commands.

You may change the operation back by pressing the ⎡←⎤ button then press the ⎡TV/VCR⎤ button again (the LED will flash once).

When you press ⎡←⎤ → ⎡TV/CD⎤
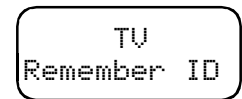
If **inVoca** is set up to wake up listening for a new keyword (personality), the display will indicate:

```
    TV
Wake to ID
```

If **inVoca** is set up to wake up remembering the previous personality, the display will indicate:

```
     TV
Remember ID
```

To erase a keyword ("personality"):

1. Press and release the ⎡→⎤ button, then press ⎡REW⎤.

2. **inVoca** will respond with "*Beep. Say a keyword.*"

3. Say the keyword you wish to erase.

4. **inVoca** will respond with "*keyword erased.*" (Note: erasing a personality also erases the commands associated with the personality.

inVoca Prompts

The **inVoca** Remote Control gives you a visual indication of its status through its front panel LED and LCD Display, while friendly "voice prompts" talk you through the process of setting up keys the way you want. Following is a summary of the voice prompts **inVoca** will provide:

inVoca will respond with this prompt	When you press this button	Comment
Say a word	`Train`	You may now record a voice command
Press a button		You should now press a button to associate with the command just recorded
Button accepted. Press another button		You should now press the next button associated with the command just recorded. If the last button has been pressed, press `train`.
Button assigned or *Macro assigned*	`Train` (after entering a button or macro)	*inVoca* is finished training a button
'*beep*' *Say a word*	`↱` → `Train`	You may now delete a voice command.
Button Erased or *Macro Erased*		*inVoca* has deleted a voice command
Say a keyword	`←` → `Train`	Record a personality
Keyword Assigned	`←` → `Train` (after saying a keyword)	*inVoca* is finished training a keyword (personality)
'*beep*' *Say a keyword*	`↱` → `REW`	Delete a personality (and its commands)
Keyword Erased		*inVoca* has deleted a personality (and all its commands)
Repeat		*inVoca* needs to hear two consecutive voice samples that match

| *inVoca* will respond with this prompt	When you press this button	Comment
Too Soft		You spoke too softly. Speak louder
Too Soon		You began speaking before the green light came on
Too Loud		You spoke too loudly. Speak softer
Choose a different word		The Command or keyword you used is too similar to one previously recorded.
Too Long		Your command was too long (more than 2 seconds)
Memory full		You have tried to record either too many commands, macros, or keywords. Up to 50 commands, 50 macros, or 4 keywords may be recorded

Front Panel LED

The front panel LED will light in various colors to indicate the status of the *inVoca*. Following is the meaning of the different colors:

| LED Color	Front Panel (Visible) LED Interpretation
Off	*inVoca* is sleeping awaiting a button depression.
Red	*inVoca* is sending infrared commands to your TV, other device, or flashing programming responses.
Orange	*inVoca* is listening for keywords
Green	*inVoca* is listening for remote commands

LCD Display

The LCD display provides a comprehensive view of *inVoca*'s status and operation. Most displayed words are self explanatory and described elsewhere in this manual.

In general, the device selected (TV, VCR, etc.) will appear on the top line:

```
     TV
```
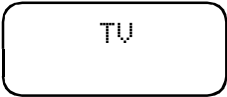
The LCD display will always show the active device when *inVoca* is transmitting signals. This is particularly useful when Priority Press or Punch Through are responsible for commands to be sent different device than the one you have selected. (See Priority Press, page 32, and Punch Through, page 29)

When Priority Press is active, an asterisk will appear on the far left side of the top line.

```
*      TV
```
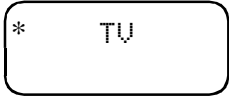
The symbols "<" or ">" will display on the right side of the top line if the ⟵ or ⟶ buttons have been pressed:

```
     TV    >
```
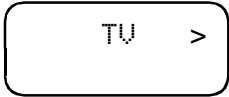
When setting up *inVoca* for your entertainment system (see page 62), the display will indicate the device code entered.

```
     TV
131
```
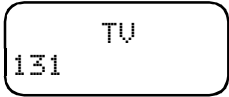
If you attempt to enter an invalid device code, the display will indicate:

```
     TV
Not Found
```

ADVANCED FUNCTIONS

inVoca offers a number of advanced functions that bring out its full power. These include:

Button Macros — In addition to invoking the macro by speaking the appropriate command, you may play macros by first pressing the appropriate macro button. In the set-up procedure described earlier, every macro is assigned to a button as well as a voice command. However, *inVoca* makes the decision as to which button it will assign to each macro.

If you wish to control what button is assigned to each macro, you may manually assign macros to specific buttons, then assign a voice command to the specific macro, rather than have *inVoca* automatically assign the button. This method of operation is called Button Macros.

inVoca can store up to four Button Macros. The four macro buttons are the `F1` - `F4` buttons.

Setting Up a Button Macro
- Press the `Learn/M` (Learn Macro) button.
- The LED will flash once.
- Select one of the four macros by pressing your choice of `F1` - `F4`.
- The LED will flash twice.
- Press the button sequence that you want to program.
- NOTE: The remote will transmit IR commands while you do this so you can see the effect. The LED will light as it normally does when you press buttons.
- Since this macro has only one string, you can end it by pressing the `PROG` key.

For example to program Macro F4 to go to channel 24 using your cable box:

Press	LED flashes	Comment
`Learn/M`	1	Starts the sequence
`F4`	2	Selects Macro 4
`CBL`	1	Selects the cable box
`2`	1	
`4`	1	Channel 24
`PROG`	3	End of Macro

When programming macros manually, you simply assign the voice command to the specified macro key. For example, if button `F4` has already been assigned to channel 24 (as above), and you now wish to invoke this with the command "Home Box Office," the voice training sequence is:

You Do This	*inVoca* Response
Press the `Train` button	"*Say a word.*" LED will light green.
Say "***Home Box Office***"	"*repeat.*"
Say "***Home Box Office***"	"*Press a button.*"
Press `F4`	"*Button accepted. Press another button.*"
Press the `Train` button.	"*Macro assigned.*"

Following is an example of creating a multi-string button macro to have button F1 cycle through favorite channels 2, 4, and 12:

Press	LED flashes	Comment
Learn/M	1	Starts the sequence
F1	2	
0	1	
2	1	
Learn/M	2	end of first string
0	1	
4	1	
Learn/M	2	end of second string
1	1	
2	1	
PROG	3	end of macro

(*Note: To reduce keystrokes you should not press* Learn/M *before* PROG *at end of macro.*)

When creating macros, rather than pressing device buttons twice, you may find it easier to select a device using the ⟵ or ⟶ buttons as follows:

Button	Normal	Preceded by:	
		⟵	⟶
TV/CD	TV/CD*	TV	CD
CBL/SAT	CBL/SAT*	CBL	SAT
Audio/AUX	Audio/AUX*	Audio	AUX
VCR/DVD	VCR/DVD*	VCR	DVD

* Each press toggles the selection. For example, pressing TV/CD once selects TV. Pressing again selects CD. Pressing once again selects TV.

SPECIAL COMMANDS

Delay
On rare occasions, you may find an entertainment device which requires a pause between commands for a macro to operate properly. To provide a pause of ½ second between two commands in a macro, press ⟶ followed by PAUSE.

Word Spotting
inVoca offers a powerful voice recognition technology called Word Spotting, which allows it to recognize commands even in the middle of a sentence. Word Spotting is useful if *inVoca* is responding to loud background conversation in the room or if the TV is very loud, and adjusting the microphone sensitivity does not help. The word spotting function is initiated by the programmed keyword(s). Word Spotting, however, could cause inVoca to respond to command words spoken by other people in the background, or even conversation on the television. To turn Word Spotting on or off, press ⟶ followed by AUTO. The LED will flash once when Word Spotting is turned off, and will flash twice when Word Spotting is turned on. The LCD will indicate when you turn Word Spotting on or off:

```
      TV
 WordSpot On
```

To use Word Spotting, you should program *inVoca* for the keyword that you want to use. For example if you set up your keyword to be 'remote' and enable Word Spotting, when you wake up *inVoca*, the LED will light orange to let you know that it is listening for a keyword. Once it recognizes the keyword the LED will turn green indicating it is listening for a command. For example, if the keyword is 'remote' even if *inVoca* is awake, it will ignore any commands until it hears the word 'remote'.

Adjust Wake Time

*To maximize battery life, the **inVoca** will "sleep" when not in use and is awakened to listen for voice commands when you press the* `Wake up` *button. Normally, when you first wake up **inVoca**, it will remain awake for 60 seconds. The Wake time may be lengthened as follows:*

1. Press `AUX`	The LED will flash red once.
2. Press `PROG`	The LED will flash red twice.
3. Press `5`	The LED will flash red once.
4. Press `PROG`	The LED will flash as follows: 1 flash = 1 minute 2 flashes = 5 minutes 3 flashes = 10 minutes 4 flashes = 30 minutes
5.	Repeat steps one through four to cycle through the possible wake time intervals.

☞ *Note: The **inVoca** is "awake" and listening for commands only when the LED is green. This is independent of the digital LCD display, which will remain on for a brief interval after a button press, and may be on even when the **inVoca** is not "awake" and listening for commands.* ✎

SEARCH MODES

inVoca offers two search modes, "***Auto Search***" and "***Manual Search***," to help you find the correct code for your entertainment device. When searching for a code using ***Auto Search*** or ***Manual Search*** you must first select the appropriate device type.

The `TV/CD` device button will search through TVs and TV/VCR combos.

The `VCR/DVD` device button will search through VCRs, TV/VCR combos and DVD players.

The `CBL/SAT` device button will search through cable boxes and DSS receivers.

The `Audio/Aux` device button will search through all codes.
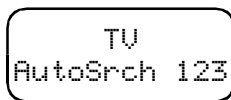
Auto Search for Your Device Code:

If you have trouble programming the device code for ***inVoca***, or can't find the correct code in the manual, ***inVoca*** can cycle through the available codes automatically to help you locate a usable code. It is recommended that this feature be used only when all other methods have failed, as it may take from 7 to 18 minutes for the remote to locate the correct code, depending on the device list that you are searching. Note: Auto search will start searching from the currently programmed device code then cycle through all the codes back to that point.

1	Power On	Manually turn on the device that you want to auto search (TV, VCR, etc)
2	`TV/CD`, `VCR/DVD`, `CBL`, or `Audio/Aux`	Press the device key for the device type for which you are searching. For example, to search for a TV code, press TV once (1 Flash).

3	PROG	Press the `PROG` button once (2 Flashes).
4		Make sure that the remote is aimed directly at the device you want to control.
5	Auto	Press the Auto Search button (1 Flash).

inVoca will now search through the library for the target device code in 3-second intervals. Every 3 seconds the remote will prompt you by flashing the light, and the remote will test the new code by attempting to turn the device power off.

The top line of the LCD display will show the device type and the second line will show the device code number as *inVoca* Auto Searches.

```
    TV
AutoSrch 123
```

(*inVoca* will skip device code numbers not associated with the particular device type.)

When the target device turns off, immediately press `PROG` to save the device code in memory.
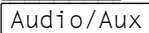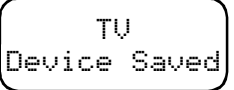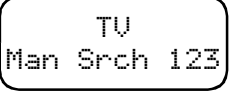
6	PROG	When the target device turns off press the `PROG` key and the code will be stored in memory (3 Flashes). The LCD display will show "Device Saved."

After you have pressed `PROG`, check the other buttons (such as CH+ and VOL+) to be sure they all work with the target device. If they do not, repeat steps 1 through 6. When the auto search is re-started the search for the target device will begin where it was last stopped.

To stop the "Auto Search" press any key except the Auto Search key.

Manual Search

You can manually cycle through the device codes to find a code that works with your TV, VCR, Cable Box, DVD, or DSS.

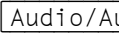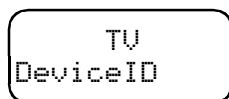| 1	Power On	Manually turn on the device that you want to auto search (TV, VCR, cable box, DVD, or DSS receiver).
2	TV/CD , VCR/DVD , CBL/SAT , or Audio/Aux	Press the device key for the device type you want to search for. For example, to search for a TV code, press TV once (1 Flash).
3	PROG	Press the program button once (2 Flashes).
4	0 , 0 , 0	Enter code 0,0,0. (1 Flash for each number pressed). The LCD display will indicate the code entered. Test the remote, if it works, skip step 5.
5	PROG	Press the `PROG` button to change to the next device code. (3 Flashes) Every time `PROG` is pressed the remote will change to the next device code. ``` TV Device Saved``` Test the remote with your entertainment device by pressing a control button such as `Power` for each code. When you press the control button, the second line of the display will change from "Device Saved" to "Man Srch" and display the code number. ``` TV Man Srch 123```
6	TV/CD , VCR/DVD , Audio/Aux , or CBL/SAT	When you find a code that works with your entertainment device, press the device key again. This will lock in the code. The LCD display will show "Device Saved."

Once you find a code that works you should read back that code using the Read Back feature. Write down the device code to simplify setup in the future.

Read Back Programmed Code

The *inVoca* can read back the codes you selected for TV, VCR, cable box, DVD and DSS receiver, so you that can write them down for future reference. To do this:

1. Press the device key for which you want the code read back. For example, if you want to know the code for your TV, press the TV/CD key once. The LED will flash once.

2. Press PROG. The LED should flash twice.

3. Press 1, then PROG. The LCD display will show the three digit code for the device.

```
    TV
DeviceID
```

Substitute Devices

inVoca does not limit you to just one of any type of entertainment product. You can program two or more TVs, VCRs, etc. by "substituting devices." Each of the four device buttons (TV/CD, VCR/DVD, CBL/SAT, or Audio/Aux) can be programmed to control any component of your entertainment system. For example, if you would like *inVoca* to control a second TV, selected by the Audio/Aux device button:

1. Press Audio/Aux and then PROG. The LED will flash twice.

2. Enter the desired TV code. The light will flash once for each digit.

3. Press PROG and the LED will flash 3 times. Now the Audio/Aux button will control your second TV. This works with
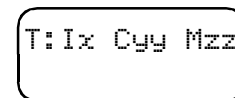
all four device buttons, so it is possible to program up to eight of any component, such as eight TV's, VCR's, etc.

Display available Memory

You may check to see how many voice commands and macros you have programmed, as well as the amount of memory space available to program additional commands and macros.

To display the total number of voice commands and macros used for all personalities,

1. Press the TV/CD key once. The LED will flash once.

2. Press PROG. The LED should flash twice.

3. Press 4, then PROG. The LCD display will show:

```
T:Ix Cyy Mzz
```

x is the number of keywords (Ids) used;
yy is the total number of voice commands programmed (up to 50)
zz is the total number of macros programmed (up to 50)

To display the number of voice commands and macros used by a specific personality (user ID),

1. Press the CBL/SAT key once. The LED will flash once.

2. Press PROG. The LED should flash twice.

3. Press 4, then PROG. The LCD display will show:

```
C:Ix Cyy Mzz
```

x is the ID number (1 through 4) of the personality (keyword) selected

yy is the number of voice commands programmed (up to 50) by the personality

zz is the number of macros programmed (up to 50) by the personality

To display the total number of voice commands and macros remaining:

1. Press the `VCR/DVD` key once. The LED will flash once.

2. Press `PROG`. The LED should flash twice.

3. Press `4`, then `PROG`. The LCD display will show:

```
R:Ix Cyy Mzz
```

x is the number of keywords (Ids) available

yy is the number of voice commands available to be programmed

zz is the number of macros available to be programmed

FREQUENTLY ASKED QUESTIONS

Q. The *inVoca* is having trouble recognizing a word that I have programmed. What should I do?

A. The problem could be that there was a background noise when you recorded the word or you picked a word that is difficult for *inVoca* to recognize. See page 25 for hints on choosing words, and "Suggested Vocabulary" (page 58) for good words to try. To see if there was some background noise when you recorded the command, simply erase the training by pressing `↱` → `Train`, then re-training the command. Try to have the television sound off when you train *inVoca*. Otherwise, the noise from the television will become part of the voice "template."

You may also be speaking the command differently than when you trained *inVoca.* This is common, particularly with new users who speak especially carefully when first training *inVoca*. Again, the best solution is to erase the command as described above, and re-train the command speaking clearly and naturally. For example, if you train "ABC" as A-pause B-pause C, you should then include the pauses when actually using *inVoca* to operate your TV.

You should always try hold *inVoca* the same distance away while you are training it as you will in actual operation, and train *inVoca* in the same room as you will be using it in due to room to room variations in acoustics.

If your television or sound system is very loud, you will have to speak louder than usual to compensate.

Finally, make sure you are using words that *inVoca* can easily understand. See "Choosing Voice Commands" (page 25) and "Suggested Vocabulary (page 58). Sometimes, due to individual speech patterns and accents, alternative words may work better for you. See "Suggested Vocabulary (page 58).

Q. The *inVoca* said "*too long*" while I was training a command. What happened?

A. A voice command may not be more than two seconds long. If you talk more than two seconds, or if there was a long background noise while you were training a command or *inVoca* was listening for a command, it will say "*too long*."

Q. I have to keep repeating "louder" and "softer" to adjust volume the amount I would like. What can I do to reduce the number of times I need to repeat these words?

A. See Fast Volume, page 27. Fast Volume is a unique *inVoca* feature designed to adjust your volume with just one command.

Q. *inVoca* appears to have difficulty hearing me unless I speak very loudly.

A. If it is impractical to hold *inVoca* closer to your mouth, and turning down the television volume does not help, you should try adjusting the microphone sensitivity control, located inside the battery compartment. See Page 29.

Q. *inVoca* keeps saying, "too soft," when I train it.

A. Adjust the microphone sensitivity switch, located inside the battery compartment. See page 29

Q. *inVoca* keeps responding to words it hears on the television or in background conversations.

A. If it is impractical to turn down the television volume, you should try adjusting the microphone sensitivity control, located inside the battery compartment. See Page 29. If this does not help, you should turn on the Word Spotting feature described on page 46. Alternatively, you may also try turning on Auto-Mute, described on page 35.

Q. I pressed the ⌷Wake up⌷ button, but *inVoca* does not respond to voice commands.

A. *inVoca* will not respond to any voice commands until it has been trained.

Q. Is there anyway to make the *inVoca* stop listening for commands after I press the ⌷Wake up⌷ button?

A. If you press the ⌷Wake up⌷ button after *inVoca* is already awake, it will put the *inVoca* back into the sleep mode.

Q. When I first received my inVoca, I trained it with a lot of trial commands. Now I want to start over. Is there an easy way to erase everything I did.

A. See "Erasing *inVoca*'s Programming," page 29.

Q. When I try to use the *inVoca* remote, nothing happens, and the LED does not flash.

A. Check to make sure that the batteries are good and have been correctly installed. Refer to the Battery Installation section of the manual.

Q. After I program the *inVoca* remote, it does not work with my entertainment device.

A. You probably didn't select the correct device code. Refer to the Detailed Programming section of the manual. If problems persist, refer to the Auto Search feature.

Q. I tried all the methods, but I still couldn't program the remote correctly, and I don't see my brand of entertainment device listed in the code list.

A. Your entertainment device may not be supported by the *inVoca* remote. Call the customer support number: 1 (800) 200-7700.

Q. The remote is acting erratically.

A. The batteries are probably too weak. Refer to the Battery Installation section and replace them.

Q. My TV takes a long time to change channels after I tell it to go to a specific channel.

A. Some TVs require a channel number to be followed by "Enter." If yours is one of these, make sure you have entered the channel number and then the "Enter" button when training macros.

Q. When using the SCAN function, sometimes I have trouble getting the scanning to stop.

A. *inVoca* cannot respond to your voice while it is busy sending channel commands to the TV etc. Wait until the LED is no longer red to tell *inVoca* to stop the scanning action.

Q. The "Previous Channel" command on the *inVoca* does not work with my TV. My original remote control does not have this function.

A. *inVoca* supports the most popular commands for today's electronic equipment. However, a few remote control functions, such as mute or previous channel, will not work if the actual TV etc. does not support the feature. Similarly, because the space for buttons is limit

Q. My VCR does not begin recording when I press the Record button.

A. To prevent accidentally recording over recorded material, *inVoca* requires that you press the Record button twice to send a record command to your VCR or tape deck.

Q. When I inserted the batteries, the display lit, but my *inVoca* did not operate and did not respond to any buttons that I pressed.

A. On rare occasions the *inVoca* may "freeze" (i.e. not respond to button pushes) when you insert new batteries. If this occurs, just remove the batteries, wait a few seconds, and reinsert the batteries.

Q. Where can I find more helpful hints about my *inVoca*?

A. Visit the *inVoca* Web site at www.invoca.com.

SUGGESTED VOCABULARY

The following words are recommended for best results:

Word	Comment
TV POWER	
LOUDER	(Usually better than "Volume Up")
SOFTER	(Usually better than "Volume Down")
NEXT CHANNEL	(Usually better than "Channel Up" You may also try "CHANNEL FORWARD.")
CHANNEL BACK	(Usually better than "Channel Down.")
STOP	
PLAY TAPE	
REWIND	
FAST FORWARD	
SILENT	(Better than "Mute." "MUTING" is also satisfactory)
SCAN	
SURFING	(Better than "Surf")
CABLE	
CABLE POWER	
CD PLAYER	
AUDIO	

Try to use a mix of longer words and shorter words, but avoid very short words like On, Off, or Mute. *Don't hesitate to experiment — everybody speaks differently!*

MY PERSONAL VOCABULARY

Sometimes it is not easy to remember just what words you have trained *inVoca* to recognize, particularly if you have been experimenting with different words. You may find it useful to fill in this chart to help your memory.

Button/ Macro	User 1	User 2	User 3	User 4
Keyword				
CH+				
CH-				
Vol +				
Vol -				
Mute				
TV Power				
VCR Power				
Prev				
Scan				

|				

BATTERY INSTALLATION

Your *inVoca* Voice Operated Remote Control requires four new AA alkaline batteries. Installing the batteries involves three simple steps:

First, open the battery cover on the back of the *inVoca* by pushing back on the tab and pulling out the cover.

Then, insert four new batteries in the direction indicated on the inside of the battery compartment. *Note: if you are replacing old batteries, unlike conventional remote controls, inVoca will retain its set up and programming indefinitely, even without batteries.*

Finally, with the four new batteries properly installed, close the cover.

Note: Do not mix old and new batteries. If your *inVoca* is not to be used for a long period of time, remove the old batteries to prevent leakage and internal damage.
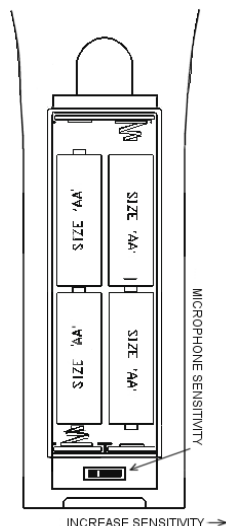
USE ALKALINE BATTERIES ONLY

INDEX OF DEVICE CODES

Following is a list of device codes to be used when programming the *inVoca* remote control. Note that the first codes listed for an entertainment device brand are the latest models. You may have to try some or all of the codes for each brand before you find the proper code for your product. If you have problems, refer to the Frequently Asked Questions section of the manual (page 54)

Set-Up Procedure (see page 10 for details)

1. TV/CD , CBL/SAT , VCR/DVD , or Audio/Aux	Press the device button. The LED will flash once. The LCD display will show the device selected. Pressing the device button twice will select the alternative device.
2. PROG	Press the PROG button. The LED will flash twice.
3. 1 → 2 → 3	Type in the 3-digit code for your TV, VCR, etc. The LED will flash for each digit pressed. The number you have entered will show on the second line of the display.
4. PROG	After you have entered the correct code, press PROG . The LED will flash three times. The LCD display will show, "Device Saved."
5. TV/CD , CBL/SAT , VCR/DVD , or Audio/Aux	Repeat steps one through four for each device.

TV Device Codes

TV Manufacturer	TV Device Code
Admiral	025, 049, 078, 133, 142, 590, 594, 584
Akai	071
Amark	263
Anam	049, 047
Anam National	138, 154

TV Manufacturer	TV Device Code
AOC	015, 014, 135, 146, 593
Archer	263
Audiovox	263
Bell and Howell	078, 590, 594, 614
Brooksonic	338, 585, 593
Candle	014, 013, 023, 139
Capehart	135
Carver	128
Centurion	001
Citizen	132, 014, 046, 013, 139, 048, 023
Concerto	139
Contec / Cony	049, 163
Coronado	130, 132
Craig	049, 154, 600, 601, 602, 603
Croslex	592
Crown	132
CTX	111
Curtis Mathes	132, 014, 046, 585, 603, 590
CXC	049
Daewoo	309, 308, 306, 132, 015, 048, 067, 612, 617, 611
Daytron	132, 634
Emerson	307, 010, 049, 132, 001, 025, 160, 163, 024, 171, 172, 338, 600, 601, 602, 634, 603, 595, 618
Envision	014
Fisher	018, 153, 604
Fortress	142
Fujitsu	025
Funai	049, 025, 331
Futuretech	049
GE	179, 133, 011, 012, 137, 134, 138, 038, 159, 001, 172, 584, 598, 632
GE Combo	179
Goldstar	015, 132, 139, 122, 083, 001, 597, 622, 626, 638, 593, 634, 608

TV Manufacturer	TV Device Code
Goldstar TV/VCR Combo	029
Griswold	069, 169
Hallmark	001
Hitachi	016, 150, 132, 131, 139, 054, 158, 008, 176, 358, 636, 609
Infinity	128
JBL	128
J.C. Penney	133, 132, 011, 124, 015, 014, 046, 145, 148, 608, 632, 585
JVC	273, 136, 157, 359, 606, 607
Kenwood	014
Kloss	013
Kloss Novabeam	126
KMC	083
KTV	163, 132, 049, 171, 610, 637, 615, 634
Linatech	069, 169
Lodgenet	079
Logik	078
Luxman	139
LXI	018, 081, 133, 128, 019, 596, 585
LXI Combo	205
Magnatron	111
Magnavox	128, 014, 126, 125, 127, 143, 023, 164, 619, 623, 592, 605
Marantz	014, 128
Memorex	018, 078, 337
MGA	177, 149, 014, 015, 151, 001
Mitsubishi	149, 015, 001, 071, 151, 038, 002, 593, 635
MTC	015, 014, 046, 139, 067
Multitech	168
NAD	081, 060
NEC	014, 015, 139, 021, 593
Onwa	049
Optimus TV/VCR	029, 018, 132, 020, 049, 130

TV Manufacturer	TV Device Code
Optonica	142, 020
Panasonic	262, 209, 210, 211, 212, 259, 176, 207, 208, 206, 134, 138, 155, 128, 596, 597, 625, 598, 632
Philco	128, 015, 014, 125, 126, 127, 023, 164, 592
Philips	128, 038, 592
Philips TV/VCR Combo	195
Pioneer	060, 131, 599, 613, 598
Portland	132, 015, 633
Proscan	133, 145, 015, 124, 137, 131, 159, 169, 332
Proton	129, 132, 001, 135
Pulsar	079
Quasar	262, 209, 210, 211, 212, 259, 176, 207, 208, 206, 134, 138, 624, 610
Radio Shack	132, 020, 049, 130, 139, 584, 604, 635, 603
Radio Shack TV/VCR Combo	029
RCA	324, 326, 133, 145, 015, 124, 137, 131, 159, 169, 588, 589, 620, 621, 627, 587, 633, 632, 584
Realistic	018
Realistic TV/VCR Combo	029
Sampo	014, 135, 144
Samsung	046, 130, 139, 015, 014, 132, 330, 605, 592
Samsung Combo	050, 330
Sanyo	018, 153, 147, 604
Scott	049, 025, 132, 010, 603, 592
Sears	128, 018, 147, 133, 139, 019, 148, 081, 153, 156, 001, 025
Sharp	142, 020, 132, 017, 594, 595
Signature 2000	078, 602, 606
Sony	038, 141, 123, 039, 170, 373, 584, 585, 586, 587

TV Manufacturer	TV Device Code
Soundesign	049, 001, 023
Spectracon	146
SSS	015, 049
Supre-Macy	013
Sylvania	128, 014, 126, 125, 127, 140, 023, 164, 360, 592
Symphonic	049, 025, 331, 615, 602, 616
Tandy	213, 142
Tatung	138
Technics	134
Techwood	139
Teknika	139, 132, 046, 078, 015, 013, 048, 149, 025, 049, 023
Tera	129
Thomson	166, 167
TMK	139, 001
Toshiba	081, 018, 046, 148, 357, 616, 594
Tosonic	163
Totevision	132
Universal	011, 012
Vector Research	014
Victor	136
Video Concepts	071
Vidtech	015, 001, 609, 592
Viking	013
Montgomery Ward	011, 012, 128, 078, 015, 125, 127, 137, 014, 143, 020, 159, 001, 164
Wards	025, 592, 595
Yamaha	015, 014
York	001
Zenith	079, 078, 369, 371, 372, 591, 589
Zenith Combo	029
Zonda	263, 029

VCR Device Codes

VCR Manufacturer	VCR Device Code
Admiral	189, 191, 080, 178, 179
Aiwa	315, 316, 226, 204, 333, 341, 343
Akai	072, 052, 051, 022, 073, 342
Audio Dynamics	192
Bell and Howell	080
Brooksonic	191, 189, 026, 340, 338
Canon	176, 187, 059
Carver	185
Citizen	026
Consonic	111
Craig	050, 035, 061
Curtis Mathes	176
Daewoo	308, 199, 175, 002
Daytron	175
DBX	192
Dynatech	204
Emerson	278, 307, 191, 189, 009, 204, 057, 053, 029, 073, 183, 032, 026, 338
Fisher	055, 035, 031, 028
Funai	204
GE	317, 318, 320, 321, 322, 192, 176, 179, 181, 368
Go Video	050, 197, 200
Goldstar	029, 174, 027
Harman Kardon	265, 027
Hitachi	176, 036, 075, 069, 204, 072, 181, 037, 201, 358
Instant Replay	218, 176
J.C. Penney	036, 176, 050, 027, 033
JCL	176
Jensen	072
JVC	072, 182, 193, 084, 194, 334, 359
Kenwood	034, 072, 182
Lloyd	204

VCR Manufacturer	VCR Device Code
Logik	030
LXI	029
LXI Combo	205
Magnavox	176, 185, 190, 188
Marantz	176, 027, 185
Marta	029
MEI	176
Memorex	176, 029, 178, 204, 080, 035, 055, 341
MGA	177, 176, 073
Minolta	069, 036
Mitsubishi	265, 266, 176, 177, 073
MTC	204, 050
Multitech	204, 030
NAD	058
NEC	267, 027, 033, 072, 182, 074
Optonica	178
Optimus TV/VCR Combo	029, 050, 178, 204, 176, 034, 035, 028, 055, 262
Panasonic	262, 209, 210, 211, 212, 206, 207, 208, 176, 187, 184, 367
Pentax	069, 036, 181
Philco	176
Philips	176, 185, 188
Philips TV/VCR Combo	195
Pilot	029
Pioneer	058, 182
Portland	175
Pulsar	080
Proscan	179
Quartz	034
Quasar	262, 209, 212, 207, 176, 187, 186
Radio Shack TV/VCR Combo	029
RCA	179, 322, 323, 324, 206, 179, 181, 184, 176, 036, 069, 190, 192, 317, 318, 320

VCR Manufacturer	VCR Device Code
Realistic	029, 050, 178, 204, 176, 034, 035, 028, 055
Ricoh	042
Samsung	050, 002, 051, 330
Sansui	182, 072, 061, 074
Sanyo	034, 035, 055
Scott	189, 009, 002, 191
Sears	176, 270, 035, 034, 031, 029, 036, 028, 055, 069
Sharp	258, 178
Shintom	030
Sony	176, 041, 042, 040, 173, 043, 038, 375, 377, 379
STS	036
Sylvania	176, 177
Symphonic	204, 331
Tandy	204
Tashiko	026
Tatung	072
Teac	072, 204
Technics	176
Teknika	029, 176, 204, 056
TMK	053
Toshiba	002, 177, 028, 009
Totevision	050, 029
Unitech	050
Vector Research	033, 027
Victor	084, 182
Video Concepts	033, 073
Videosonic	050
M. Ward	036, 176, 178, 204, 035, 030, 190, 009, 050
Yamaha	027, 072
Zenith	080, 042, 041, 029

Cable Box Device Codes

Box Manufacturer	Cable Box Device Code
ABC	091, 096, 088, 093
Antronix	241
Archer	227, 271, 241, 111
Century	111
Citizen	111
Comtronics	106, 045
Cox	746
Eagle Comtronics	045
Eastern	086
Electricord	004
Explorer 2000	746
GC Electronics	063
Gemini	064, 068, 095, 116
General Instruments	091, 087, 094, 362
Hamilton	346, 347, 348
Hamlin	118, 119, 085, 090, 103, 311, 312
Hitachi	091
Jasco	111
Jerrold	325, 305, 249, 251, 272, 094, 091, 087, 095, 100, 101, 104, 108, 350
Kingston	111
Macom	003
Memorex	076
Movie Time	004, 112, 113
NSC	112, 113
Oak	088, 097, 007
Panasonic	313, 099, 109
Paragon	076
Philips	238, 239, 252, 253, 300, 106, 102
Pioneer	005, 070, 062, 344
Popular Mech.	400
Pulsar	076
RCA	099
Regal	120, 118, 085, 119, 346, 347, 348

Box Manufacturer	Cable Box Device Code
Regency	086
Rembrandt	068
Samsung	045, 005
Scientific Atlanta	089, 096, 120, 314
Signal	045
Signature	091
SL Marx	045
Sprucer	099, 121
Standard Compnt	065
Starcom	095, 087, 104, 108
Stargate	045, 095
Sylvania	082
Tandy	117
Teknika	006
Telecaption	115
Texscan	082, 107
Tocom	310, 093, 092, 105
Toshiba	076
Unika	227, 241, 111
United Artists	088
Universal	241, 227, 271, 066, 004, 044, 111
Viewstar	106, 117, 110, 114
West	111
Zenith	237, 076, 077

DVD Player Device Codes

DVD Manufacturer	DVD Device Code
Apex	380
California Audio	382
Denon	381, 387, 391
Fisher	382
GE	383, 384
Goldstar	395
JVC	354, 378
Kenwood	401
Magnavox	385, 399
Mitsubishi	356, 399
NAD	399
Optimus	394
Panasonic	335, 382, 402, 403, 404, 405
Philips	385
Pioneer	355, 398, 408
Proscan	383, 384, 339
Quasar	382
RCA	339, 383, 384, 388
Realistic	394
Samsung	396
Sanyo	397
Sharp	401
Sony	351, 386
Teac	389, 390
Technics	382, 404, 405
Theta-Digital	385
Thompson	383, 384
Toshiba	336, 392, 398, 401
Yamaha	393, 400, 403
Zenith	395

DSS Receiver Device Codes

DSS Manufacturer	DSS Device Code
DishNet	376
Hitachi	352
Hughes	363
Primestar	322
RCA	320, 327, 365, 364
Sony	321, 328

Working with DSS On-Screen Menus

Remote Key Name	Screen Menu Function
REC	Menu
Pause	Select
Play	Menu +
Stop	Menu -
Rew	Menu L
FF	Menu R

Audio Receiver Device Codes

Audio Manufacturer	Audio Device Code
Aiwa	410, 437, 454, 462, 471, 472, 474, 476, 511, 514, 643
Akai	444
Bose	427, 454
Carver	459
Casio	430
Clarion	412
CurtisMathes	430
Denon	501, 502, 503
Fisher	418, 459, 519
Hitachi	411
Inkel	468

Audio Manufacturer	Audio Device Code
JCPenny	430, 477
JVC	439, 451, 464, 484, 494, 495
Kenwood	412, 424, 446, 447, 459, 460, 461, 463, 465, 468, 469, 481, 492, 493
Koss	477
LKI	430
Magnavox	448, 520
MCS	430
Nakamichi	438, 505
NEC	456
Onkyo	498, 509
Optimus	412, 416, 444
Panasonic	413, 457, 467, 480, 510
Philips	512
Pioneer	408, 409, 414, 415, 417, 421, 426, 431, 440, 449, 452, 491
RCA	407, 419, 425, 441, 515, 516, 517, 518, 530
Realistic	428, 429
Sansui	419, 505, 506
Sanyo	418, 422
Sears	430
Sharp	412, 435, 443, 460, 501, 517
Sony	408, 409, 410, 434, 436, 450, 479, 482, 485, 490, 643
Taekwang	444
Teac	508, 406, 420, 438, 475, 478, 504, 507
Technics	442, 456, 457, 458, 466, 470, 480, 487, 488, 496, 497, 510
Toshiba	423, 432
Wards	459
Yamaha	412, 425, 433, 453, 455, 473, 483, 486, 489, 499, 500
Zenith	445

CD Player Device Codes

CD Manufacturer	CD Player Device Code
Adcom	679
Aiwa	548, 549, 677, 680, 692, 693, 725, 730
Akai	690, 731, 732
AMC	739
Audio Access	703
Audio Technica	667
BSR	663
Carrera	675, 687
Carver	669, 706, 707, 709, 710, 722, 729, 733, 691
Crown	661
Daewoo	699
Denon	542
Emerson	555, 556, 666, 700, 699
Fisher	669, 729, 545
GE	699
Genexxa	648, 700
Goldstar	687
Haitai	696
Harmon Kardon	668, 734
Hitachi	555, 727, 666, 645, 699
Inkel	713, 714
JCPenny	650, 678, 695
Jensen	717
JVC	629, 525, 526, 720, 527
Kardon	553
Kenwood	528, 529, 647, 654, 673, 683, 684, 708, 712, 729
Koss	678
Krell	741
KTV	699
Kyocrea	645
Lotte	700
Luxman	649, 658, 682, 685
LXI	557, 677
Magnavox	541, 699, 540
Marantz	532, 657, 670, 685
MCIntosh	735
MCS	650, 695

CD Manufacturer	CD Player Device Code
Memorex	648
Mitsubishi	699
Mitsumi	716
NAD	646, 645, 681
Nakamichi	697, 736, 737, 738, 532
NEC	679, 699, 650
Nikko	667
Onkyo	535, 536, 659, 664, 665, 723, 724
Optimus	676, 688, 689, 675, 696, 731, 648, 690, 669
Panasonic	547
Parasound	740
Phillips	540, 544
Pioneer	522, 531, 653, 656, 674, 728, 727, 648, 660
Portland	699
Procede	742
RCA	630, 522, 530, 550, 551, 711
RCX	729
Realistic	666, 669, 670, 730, 681, 700, 712, 730
Rotel	719
Samsung	699
Sansui	631, 641, 534, 704, 726, 532
Sanyo	545, 669
Scott	700
Sharp	542, 546, 670, 646
Sherwood	554, 644, 652, 698, 701, 702, 721, 703, 670, 682
Sony	521
Soundesign	743
Sylvania	699
Symphonic	671
Taekwang	731, 690
Tandy	648
Teac	641, 543, 545, 550, 660, 662, 671, 699, 705, 711, 670
Technics	547, 642, 523, 524
Techwood	685
Theta Digital	741
Toshiba	681, 715, 718, 646, 694
Vector Research	687

CD Manufacturer	CD Player Device Code
Wards	699, 729
Yamaha	537, 538, 539, 655, 672, 667

Tape & Cassette Player Device Codes

Drive Manufacturer	Tape Drive Device Code
Aiwa	572, 578, 579
Denon	569
Fisher	583
JVC	560, 561
Kenwood	564, 565
Nakamichi	571
Onkyo	566, 567, 577
Panasonic	575
Phillips	580
Pioneer	559, 576
RCA	581, 582
Sansui	574, 571
Sharp	569
Sony	558
Teac	570, 573
Technics	562, 563, 575
Yamaha	568

Miscellaneous

Miscellaneous Device	Device Code
Panasonic Hard Disk	745
Replay TV	745
TIVO	744
X10	366

SUMMARY OF BUTTON FUNCTIONS

The following table summarizes the function of each button, when pressed by itself, and when preceded by either the ⟵ or the ⟶ button.

Button	Normal	Preceded by: ⟵	Preceded by: ⟶
TV/CD	TV/CD*	TV	CD
CBL/SAT	CBL/SAT*	CBL	SAT
Audio/AUX	Audio/AUX*	Audio	AUX
VCR/DVD	VCR/DVD*	VCR	DVD
Wake up	Listen	Switch personality	Switch personality
Power	Power	Power	Power
Mute	Mute	Toggle Auto-Mute	Toggle Auto-Mute
Prev	*Recall*	Display	Adjust VR thresh **
VOL+	Vol+	Fast Volume 4 +	Fast Volume 8 +
VOL-	Vol-	Fast Volume 4 -	Fast Volume 8 -
CH+	Ch+	Up	Up
CH-	Ch-	Down	Down
F1	play button macro 1	play button macro 1	play button macro 1
F2	play button macro 2	play button macro 2	play button macro 2
F3	play button macro 3	play button macro 3	play button macro 3
F4	play button macro 4	play button macro 4	play button macro 4
Learn/M	Learn Macro	Learn Macro	Learn Macro
PROG	PROG	Menu	Menu
Train	New word	New Keyword	Delete word
Auto	Enable Priority Press & Auto-search	Toggle Word-Spotting	Toggle Word-Spotting
Enter	Enter	Select	Select
TV/VCR	TV/VCR function on VCR	Toggle get personality on every wake up	Toggle get personality on every wake up
1	*1*	*1*	*1*
2	*2*	*2*	*2*
3	*3*	*3*	*3*
4	*4*	*4*	*4*
5	*5*	*5*	*5*
6	*6*	*6*	*6*

Button	Normal	Preceded by: ⟵	Preceded by: ⟶
7	*7*	*7*	*7*
8	*8*	*8*	*8*
9	*9*	*9*	*9*
0	*0*	*0*	*0*
REC	Record *(press twice to record)*	Record *(press twice to record)*	erase memory (see p20)
Pause	*Pause*	*Up*	Delay
Rew	*Rewind*	*Left*	Delete Personality
Play	Play	Test Listen **	Play
FF	Fast Forward	Right	Fast Forward
Stop	Stop	Down	Reset
Display	Display	Display	Display
Menu	Menu	Menu	Menu
Surround	Surround	Surround	Surround
Exit	Exit	Exit	Exit
Next	Next	Next	Next
Select	Select	Select	Select

* Each press toggles the selection. For example, pressing TV/CD once selects TV. Pressing again selects CD. Pressing once again selects TV. Alternatively, pressing ⟵ or ⟶ prior to a device selection button unambiguously selects the desired choice.

** for technician use only.

INDEX

WARRANTY, TECHNICAL SUPPORT, AND COPYRIGHT INFORMATION
Kash N Gold Ltd.
Sole Distributors For TELEMANIA™ Products

Limited Warranty

Kash N Gold warrants to the original purchaser that this product is free from defective materials and workmanship for a period of 1 year from date of original purchase.

Should a failure occur in normal usage during the 1 year warranty period. Kash N Gold will repair or, in its discretion, replace this product without charge (except for a $10 charge to cover: handling, packing, and return postage or freight). This warranty excludes (A) Damages due to misuse, negligence abuse or accidents. (B) Repairs by persons not authorized by Kash N Gold and (C) AC cords, or other accessories where applicable (D) Installation, improper maintenance or commercial use (E) Cracked or broken cabinets (F) Acts of GOD.

When returning this product (A) Enclose a copy of your sales slip to verify warranty service. (B) Include explanation of defect problem (C) Enclose check or money order for $10 payable to Kash N Gold Ltd. (D) Forward prepaid and insured.

All products sent after the warranty period or without proof of date of sale will be serviced on an out-of-warranty basis.

This warranty is valid only in the United States, and does not extend to owners of the product subsequent to the original purchaser.

In the United States, this warranty gives you specific legal, rights, and your rights may vary from state to state.

Kash N Gold Ltd.
1 Trade Zone Court, Ronkonkoma,
NY 11779,U.S.A.
1-800-354-8785

In accordance with "Moss Magnuson warranty act" of July 10,1975 this is termed a "Limited" warranty, which in no way compromises Kash N Gold high standards of quality and workmanship.

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For support and service, visit the *inVoca* Web site at www.invoca.com or call 1 (800) 200-7700

Requires 4 AA batteries (not included) USE ALKALINE BATTERIES ONLY

Telemania Model: *inVoca* Remote

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

TELEMANIA™   *inVoca* Remote

FC

TESTED TO COMPLY WITH FCC STANDARDS

FOR HOME OR OFFICE USE

October 31, 2000